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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/828,906
Filing Date: April 21, 2004
Appellant(s): ZHANG ET AL.

Milton L. Honig
Registration No. 28,617
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 22 2008 appealing from the
Office action mailed December 19 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

20020100122	Rodrigues et al.	9-2002
5965518	Nakatsu et al.	10-1999
20040266921	Rodrigues et al.	12-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 4-6 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodrigues et al. (US PG PUB No. 2002/0100122) in view of Nakatsu et al. (Patent No. 5965518).

Determination of the Scope and Content of the Prior Art (MPEP §2141.01)

Rodrigues et al. '122 describes dilute fabric softener formulations (example 23) that contain a hydroxyl compound and a perfume. Preferred hydroxyl urea compounds include N-2-hydroxyethyl urea (paragraph 0018), which reads on claim 2 of the instant application and meets the requirement of a substituted urea of claim 1. Water is included in formulation of the fabric softener thereby meeting the cosmetically acceptable carrier requirement of claim 1 of the instant application. Rodrigues et al.

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'122 discloses that the hydroxyl compounds in the fabric softener composition are from 0.0001 to 20 percent (paragraph 0037), which reads on claim 5 of the instant application. The perfume included in the fabric softener (example 23) formulation of Rodrigues et al. '122 is from 0.2 to 0.5 percent, which reads on claim 4 of the instant application. The ratio of substituted urea relative to the unsaturated material of example 23 of Rodrigues et al. '122 reads on claim 6 of the instant application.

Nakatsu et al. describes fragrance compositions that have antimicrobial activity (abstract). These fragrance compositions comprise non-aromatic terpenoids (abstract). Nakatsu et al. discloses that the fragrances are made by selecting and combining various materials. These materials include non-aromatic terpenoid compounds of which various hydrocarbon cyclic terpenoids are listed including terpinene (column 3, lines 37-45). The various non-aromatic terpenoid compounds of Nakatsu et al. include terpinene and phellendrene. These are terpenoid compounds that contain at least two double bonds and those double bonds are in a conjugated relationship. Nakatsu et al. discloses that the fragrance compound can be used in a fabric softener (claim 18).

***Ascertainment of the Difference Between Scope the Prior Art and the Claims
(MPEP §2141.012)***

Rodrigues et al. does not describe what specific types of perfumes can be included in the compositions.

Rodrigues et al. does not specify the claimed weight ratio range from about 10,000:1 to about 500:1.

***Finding of Prima Facie Obviousness Rational and Motivation
(MPEP §2142-2143)***

It would have been obvious to someone of ordinary skill in the art at the time of the instant invention to practice the invention of Rodrigues et al. '122 using the fragrance composition of Nakatsu et al. One of ordinary skill in the art would be motivated to do this because the fabric softener of Rodrigues et al. '122 contains water and therefore a fragrance composition that possesses antimicrobial activity would be advantageous. This would result in the practice of the instantly claimed invention with a reasonable expectation of success.

It would have been obvious to one of ordinary skill in the art to optimize the ratio of substituted urea to perfume material. It would have been obvious to one of ordinary skill in the art at the time of the invention to engage in routine experimentation to determine optimal or workable ranges that produce expected results.

Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. **In re Aller, 220 F. 2d 454, 105 USPQ 233 (CCPA 1955).**

While only two of terpenoids listed by Nakatsu et al. are terpenoids that contain two double bonds that are in a conjugated relationship, it would have been obvious to one of ordinary skill in the art to pursue known options within his or her technical grasp, i.e. those perfume compounds listed in the prior art as being suitable for use in various cosmetic compositions. Therefore it would have been obvious to one of ordinary skill in the art to try all the terpenoid compounds listed by Nakatsu et al.

Regarding claim 10 of the instant application. Nakatsu et al. does not specify specific Iodine Values of the various terpenoid compounds. However the compounds

of Nakatsu et al. are the same as those listed as hydrocarbon cyclic terpenoids in the instant application. Therefore there is a reasonable expectation that these compounds meet the required Iodine Value range as set forth in claim 10 of the instant application.

It is noted that In re Best (195 USPQ 430) and In re Fitzgerald (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter which there is reason to believe inherently includes functions that are newly cited or is identical to a product instantly claimed. In such a situation the burden is shifted to the Appellants to "prove that subject matter shown to be in the prior art does not possess characteristic relied on" (205 USPQ 594, second column, first full paragraph).

Accordingly, claims 1-2, 4-6 and 10-11 are unpatentable over the teachings of Rodrigues et al. '122 in view of Nakatsu et al.

Claims 1 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodrigues et al (US PG PUB No. 2004/0266921) in view of Nakatsu et al. (US Patent No. 5965518).

***Determination of the Scope and Content of the Prior Art
(MPEP §2141.01)***

Rodrigues et al. '921 is directed to use of hydroxyalkyl urea in aqueous-based polymer compositions to maintain hydration of said composition. Preferred hydroxyalkyl urea compounds are those derived from urea and comprise only a single urea group, at least one hydroxy group, and at least two carbon atoms between the urea group and the hydroxyl group (paragraph 0016). Preferred hydroxyl urea compounds include N-2-hydroxyethyl urea (paragraph 0020, and the conditioner example). The compositions

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may be formulated with adjuvants. Adjuvants that are useful include fragrances and anti-bacterials (paragraph 0035). Examples of the formulations include shampoo, conditioner, and shower gels. The examples include water, which is a cosmetically acceptable carrier.

The teachings of Nakatsu et al. are set forth above. Specifically Nakatsu describes fragrance compositions that have antimicrobial activity (abstract). These fragrance compositions comprise non-aromatic terpenoids (abstract). The various non-aromatic terpenoid compounds of Nakatsu et al. include terpinene and phellendrene. These are terpenoid compounds that contain at least two double bonds and those double bonds are in a conjugated relationship. Nakatsu et al. discloses that the fragrance compound can be used in a skin cream, hand and body lotion, sunscreen agent, hair conditioner, shampoo, deodorant, and antiperspirant (claim 18).

***Ascertainment of the Difference Between Scope the Prior Art and the Claims
(MPEP §2141.012)***

Rodrigues et al. '921 does not specify the type of perfumes that are suitable.

***Finding of Prima Facie Obviousness Rational and Motivation
(MPEP §2142-2143)***

It would have been obvious to someone of ordinary skill in the art at the time of the instant invention to practice the invention of Rodrigues et al. '921 using the fragrance composition of Nakatsu et al. One of ordinary skill in the art would be motivated to do this because the personal care formulations of Rodrigues et al. '921 contains water and therefore a fragrance composition that possesses antimicrobial activity would be advantageous. Rodrigues et al. '921 indicates that both anti-bacterial

and fragrances are suitable adjuvants. Therefore it would have been obvious to one of ordinary skill in the art to include these types of adjuvants.

While only two of terpenoids listed by Nakatsu et al. are terpenoids that contain two double bonds that are in a conjugated relationship, it would have been obvious to one of ordinary skill in the art to pursue known options within his or her technical grasp, i.e. those perfume compounds listed in the prior art as being suitable for use in various cosmetic compositions. Therefore it would have been obvious to one of ordinary skill in the art to try all the terpenoid compounds listed by Nakatsu et al.

This would result in the practice of the instantly claimed invention with a reasonable expectation of success.

Accordingly, claims 1 and 12 are unpatentable over the teachings of Rodrigues et al. '921 in view of Nakatsu et al.

(10) Response to Argument

Appellants argue that (1) the cited references start from the solution rather than the problem. The Appellants state that Rodrigues et al. '122, which is a formulation with substituted ureas seeks to further find compatible formation. The combination of these two references is inappropriate because the references present the invention's solution in the position of being a problem. Also Appellants indicate that even if the combination of references were appropriate, Rodrigues et al. ('122) does not disclose the constituents of the perfume. Appellants argue that (2) Nakatsu et al. describes fragrance compositions that stretch over two columns with many being described as

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phenolic containing substances. Appellants argue that there is a section of phenolic fragrances in Nakatsu et al. and none of these appear to be unsaturated organic materials having at least two olefinic double bonds in a conjugated relationship. Appellants argue that (3) there are 24 different terpinoids listed and only double bond olefinic material is found in the listing "phellendrene" and "terpinene". Phellenedrene is the only species that definitively has at least two olefinic conjugated double bonds. Appellants argue that (4) in the fragrance formulations of Nakatsu et al. AMPAT-C is not particularly effective against *E.Coli* and that AMPAT-C is the formulation comprising phellendrene.

Appellants' arguments have not been found to be persuasive for the following reasons.

Regarding Appellants first argument, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as discussed above, one of ordinary skill in the art would have been motivated to combine the references because both Rodrigues et al. ('122) and Nakatsu et al. references teach providing a fragrance and/or perfume in a cosmetic

composition. The fragrance compositions of Nakatsu et al. have antimicrobial activity. Therefore these fragrance compositions provide the added bonus of not only to impart a pleasing odor but as well exhibit antimicrobial activity. It is for these reasons that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Rodrigues et al. ('122) and Nakatsu et al.

The examiner further more respectfully notes that even though Appellants have recognized another advantage which would flow naturally from following the suggestion of the prior art, namely the stabilization of terpenoid components by the hydroxyethyl urea, this advantage cannot in and of itself be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Furthermore, the examiner respectfully notes that *prima facie* obviousness does not require prior art references to recognize or even suggest the problem that Appellants attempted to solve. In addition, the prior art does not have to teach combining the references for the reason that Appellants combined them. *In re Dillon*, 919 F.2d 688, 692-93, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990, en banc).

Regarding Appellants second argument, Appellants specifically claim terpenoid compounds therefore the examiner focused on terpenoids. The examiner disagrees with the Appellant regarding the phenolic fragrances. Phenols are chemical species containing benzene and therefore possess three double bonds in a conjugated relationship. If it is this feature, at least two double bonds in a conjugated relationship,

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that is important then all the phenolic fragrances would necessarily possess this feature.

Regarding Appellants third argument, while only two of terpenoids listed by Nakatsu et al. are the elected species of terpenoids that contain two double bonds that are in a conjugated relationship, there are twenty four different terpenoid compounds to choose from. This is a finite number of terpenoid compounds from which one of ordinary skill in the art has to choose from. Therefore, it would have been obvious to one of ordinary skill in the art to try the terpenoids compounds of Nakatsu et al., as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. Note: MPEP 2141 [R-6] KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (Supreme Court 2007). Furthermore, Appellants have not provided any unexpected results of the two terpenoids.

The examiner would further like to point out that Table 1 of Nakatsu et al. includes citral, suzalar, and thymol which are all terpenoid compounds possess at least two double bonds in a conjugated relationship.

Regarding Appellants fourth argument, while AMPAT-C is not as effective against *E.Coli* it is effective against *S. aureus* and *S. epidermidis*. Depending on the desired use of the composition one of ordinary skill in the art would have been motivated to choose AMPAT-C when desiring a composition that is effective against either *S. aureus* or *S. epidermidis*.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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